

Livestock and Water Quality Site Visit

Site Visit Information	<input checked="" type="checkbox"/> First Visit	<input type="checkbox"/> Follow-up Visit
Prepared by: Jessica Kirkpatrick	Arrival Time: 4:00 pm	Departure Time: 5:20 pm
Date: August 6, 2014	Current Weather Conditions: Dry and Sunny	

Owner/Operator Information	
Name: Lee & Janice Wiebe	Street: 6689 Malloy Road
City: Ferndale	Zip Code: WA
Phone: 360-319-2440	Email: WiebeConstruction@comcast.net

Site Information	
County: Whatcom	Watershed: Drayton Harbor (California Creek)
<p>General site description: Mr. Wiebe keeps between 10 and 30 cattle year round on this property. The farm is located in the California Creek drainage, a seasonal tributary to California Creek runs west to east through this farm and monitoring site SW44 is located immediately downstream of the property on Malloy Road. Results from this monitoring site show that this tributary periodically contaminated with high concentrations of fecal coliform bacteria.</p> <p>Mr. Wiebe accompanied me during the inspection and explained how he manages the farm. Mr. Wiebe has already implemented many good management practices that prevent manure from discharging into the stream. However, some areas still pose a high risk of discharging pollution. Mr. Wiebe indicated that he was willing to make some additional changes to correct these.</p>	

Site Evaluation

Stream Corridor and Areas Near Surface Water	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Bare, exposed, eroding soils <input checked="" type="checkbox"/> Contaminated run-off (active or potential) <input type="checkbox"/> Slumping stream banks and erosion <input type="checkbox"/> Overgrazing of grasses	<input type="checkbox"/> Absence of woody vegetation <input type="checkbox"/> Manure accumulations <input type="checkbox"/> Animal access to surface water <input checked="" type="checkbox"/> Livestock paths and trails along riparian areas	
<p>Comments:</p> <ol style="list-style-type: none"> Cattle are excluded from the stream on this property by fences at the top of the bank of the stream. Cattle are allowed to graze between fences set approximately 35 feet away from the stream to the top of the bank of the stream for brief periods during the summer months. These near-stream corridors supported a vigorous growth of grass at the time of the inspection and manure accumulations were not evident. Cattle have access to the wooded area on the east edge of the property, south of the stream, where they have created a muddy, manure contaminated area that discharges directly to the stream during the wet season. Additionally, stormwater runoff from Malloy Road drains through this area and into the stream, just above SW44 monitoring site. The wooded area does not support any substantial forage for the cattle. <p>2. Cattle use a lane reinforced with wood chips to cross the stream (culverted) when walking from the western pastures to the barn two times per day to access the watering trough. The slopes on either side of the stream</p>		

are steep. Manure was observed on these steep slopes of the lane and above the culvert. Cattle were previously observed loafing at the top of this steep area on the south side of the stream. The manure that the cattle deposit on these slopes while loafing and walking through contaminates stormwater that discharges into the stream when it rains heavily.

Confinement Areas	<input type="checkbox"/> Evaluated	<input checked="" type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Distance to surface water (>100 ft) <input type="checkbox"/> Presence of mud and manure <input type="checkbox"/> Signs of previous runoff reaching surface water	<input type="checkbox"/> Polluted run-off reaching surface water <input type="checkbox"/> Roof runoff water flows to confinement areas <input type="checkbox"/> Adjacent land slopes toward surface water	
<p>Comments: Cattle are confined to a concrete-surfaced confinement area and barns from mid-October through mid-April. Runoff from the confinement area pools at a low area on the west side of the confinement area, where Mr. Wiebe has constructed an aggregate infiltration system that collects this liquid in an underground storage tank. Mr. Wiebe periodically hires a pump truck to empty the tank and take the liquid away, and periodically pumps the liquid using his own equipment onto a field west of the confinement area. This field slopes toward the stream. Because this manure contaminated liquid is pumped onto the field during the wet months of the year, this is a very high risk activity. Any of this liquid that reaches the stream during pumping, or is washed into the stream by subsequent rains, will contribute pollution to the stream.</p>		

Stock Water	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Distance to surface water (300 ft) <input type="checkbox"/> Overflow from tanks on to the ground	<input type="checkbox"/> Mud and standing water at tanks <input type="checkbox"/> Animals accesses stream for stock water	
<p>Comments: There is only one stock watering tank at the facility, located in the confinement area near the barn. Cattle pastured in the pastures south of the stream must walk to the barn twice per day for water.</p>		

Upland Pasture Areas	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input type="checkbox"/> Animal access to stream corridors <input checked="" type="checkbox"/> Distance to surface water (variable 5 feet to 35 feet)	<input type="checkbox"/> Signs of overgrazing and erosion <input type="checkbox"/> Manure accumulations and bare ground	
<p>Comments: The pastures on this farm appear to be well managed. A vigorous growth of grass was observed in all pasture areas. Mr. Wiebe stated that he practices rotational grazing. The cattle are excluded from areas between 5 and 35 feet away from the stream during most of the season with electric fences. These corridors near the stream are grazed for short periods during the dry summer months. Pasture areas beyond the fences set approximately 35 feet away from the stream are grazed from mid April to mid October of each year, and cattle are rotated through these pastures. These pasture areas are in good condition and pose little risk of discharging manure to the stream.</p>		

Manure Management	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<p>Current manure management plan?</p> <p>Manure collected and stored? yes</p> <p>Manure storage properly sized? Not evaluated</p> <p>Manure storage covered? no</p> <p>Manure being collected often?</p>		<p>Manure stored on covered, impervious surface? Impervious, not covered.</p> <p>Applied during growing season? Yes</p> <p>Manure applied during non-growing season?</p> <p>Vegetated buffer when manure is applied?</p> <p>Manure applied or stored off site?</p>
<p>Comments: Manure from the winter confinement area is collected and stored in a concrete bunker on the southwest corner of the confinement and barn area. This concrete bunker is not covered. Rainwater discharging from the manure storage area collects in the low area, along with runoff from the confinement area, and is temporarily stored there and in an underground tank Mr. Wiebe stated that he periodically pumps the liquid from this underground tank out onto a field between Brown Road and the stream. Mr. Wiebe stated that he applies the solid manure to his pastures during the dry summer months.</p>		

Other Areas of Concern
<p>Comments:</p>

Corrective Actions
<ol style="list-style-type: none"> 1. The forested area south of the stream and east of brown road provides no substantial forage for the cattle and frequently drains into the stream. Install a fence at the top of this forested area to prevent cattle from accessing it. This area could be grazed only for one-day periods during dry periods from June through August. 2. Spread liquid collected from the confinement area and manure storage piles on fields only during the growing season, when fields are not saturated, and rain is not predicted for 10 days in the future. Liquid should be sprayed onto the field using a sprinkler rather than pumped out of the end of a pipe in a direct stream to maximize infiltration into the ground. If the collection area becomes full during the winter rainy season, it should be hauled away and disposed of properly. 3. Prevent cattle from depositing and accumulating manure on the bare slopes of the lane that slope steeply to the stream. This could be accomplished in one of these ways: <ul style="list-style-type: none"> <u>Option A:</u> Install gates across the lane at the top of the slope on either side of the stream and push animals back and forth across the stream and the steep slopes to access water. Remove manure from this lane frequently. Gates should be set to prevent cattle from loafing and creating denuded areas with manure accumulations at the top of the south slope. <u>Option B:</u> Install a stock water station (possibly plumbed from the southern house) on the south side of the stream so cattle do not have to walk to the barn and cross the stream twice daily for water. Locate this station at least 75 feet away from the stream and provide heavy use protection at its base such as wood chips. Prevent cattle from loafing and creating denuded areas with manure accumulations on the slopes by installing gates to exclude them from this area.

Photos Taken: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample Taken: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Additional Comments
Comments:

Ecology Contact Information	
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Inspector Signature: Jessica Kirkpatrick

Date: August 13, 2014